In the Drawings

Formal drawings are submitted herewith.

Remarks

Claims 1 to 20 are cancelled and replaced by new claims 21 to 36. No fee is due, as four independent claims have already been paid.

The new claims are presented in a manner believed to address all issues raised by the Examiner and to patentably distinguish the present invention over the prior art of record, namely Fodor et al (US6788646) and the Kelly publication.

The present invention is directed to admission of traffic flows to a network resource such as a communications link in a communications network based on two separate prices determined for an aggregated traffic flow on that resource. The two prices are separately related to the mean bandwidth of the aggregated traffic flow and a bandwidth variance of said aggregated flow. These two prices are applied to respective mean bandwidth and variance measurements of a traffic flow to be admitted to the network resource as a means of controlling said admission. Thus, the present invention enables admission of the traffic flow to be controlled by two price determinations relating to the bandwidth and variance of the traffic flow to be admitted. This has the advantage that a user of a traffic flow that is bursty in nature, for example, can negotiate a service level agreement or the like offering large variance (which increases price) but accepting a lower mean bandwidth (which reduces price) thereby optimizing their quality of service regarding cost (summation of prices). This example would be particularly beneficial to users whose traffic flows are time sensitive but burtsy. For users whose traffic flows are not time sensitive and thus can be buffered without compromising quality of service, such users can arrange for a relatively large mean bandwidth guarantee but with a low variance which once again enables them to optimize their quality of service vis-à-vis cost/total price.

While Fodor makes reference through figure 5 that adaptive elastic (traffic) flows have mean bandwidth and variance characteristics, it does not teach that the mean bandwidth and variance of an aggregated flow on a network resource should be measured, that these measurements are used to derive two separate price determinations and that the mean and variance of a traffic flow to be admitted to the network resource should be measured and the price determinations applied thereto. The graph of figure 5 of Fodor merely acknowledges the fact that any time varying traffic flow has mean bandwidth and variance characteristics.

In any event, in Kelly, each user chooses a respective charge per unit time that such user is willing to pay to influence its bit rate allocation. Then the respective bit rate for that user is determined by the network according to some proportional fairness scheme. Consequently, users only have a single price mechanism comprising the amount they are willing to pay per unit time as a means of controlling admission of their traffic flows to the network.

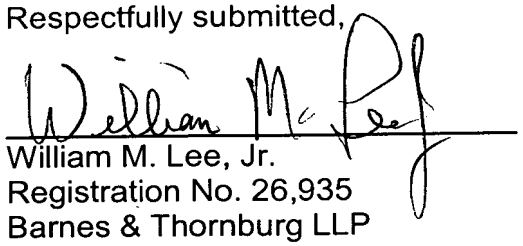
It can be seen therefore that the combination of Foder and Kelly does not teach or suggest all of the limitations of the independent claims submitted herewith nor is there anything in this combination of teachings that would lead a skilled person to propose two price determinations as a means of controlling admission of a traffic flow to a network resource.

The present invention makes a useful contribution to the art in that it provides a means of managing the admissions of traffic flows to a network resource in accordance with two price determinations relating to the resource, wherein the price determinations can be separately applied to respective corresponding characteristics (measurements) of a traffic flow to be admitted to the resource.

In view of the foregoing, it is submitted that the claims submitted herewith are in condition for allowance.

December 27, 2004

Respectfully submitted,



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